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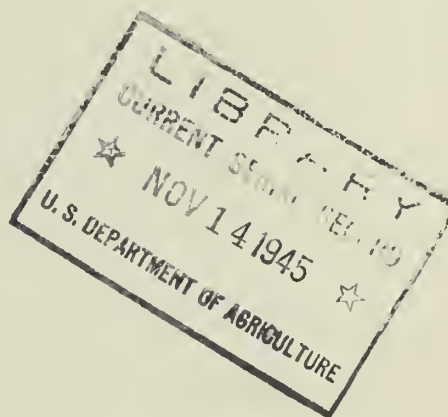
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FARM CREDIT ADMINISTRATION
UNITED STATES DEPARTMENT OF AGRICULTURE
WASHINGTON, D. C.

SWEETPOTATO STORAGE

1943



By
MILTON C. GAY

COOPERATIVE RESEARCH AND SERVICE DIVISION

July 24, 1943, Hon. Marvin Jones, War Food Administrator, addressed the following memorandum to chairmen of the State War Boards in the principal sweetpotato producing States:

"In order to meet the need for a coordinated field program to promote orderly handling of a larger than normal 1943 sweetpotato crop, Mr. Milton C. Gay, has been detailed to formulate and take to the field an overall program of marketing and storage.

"Mr. Gay has been detailed from the Farm Credit Administration to the Commodity Credit Corporation but will work with the State and County War Boards in the field.

"Cooperation of all agencies is necessary for successful handling of this crop with the objective of taking full advantage of the food value of the 1943 production of sweetpotatoes."

The task was undertaken with the full cooperation of public agricultural agencies in Washington and in the field. Results achieved are creditable to the teamwork of those agencies.

SWEETPOTATO STORAGE, 1943

By
Milton C. Gay
Economist In Charge
Fruit and Vegetable Section

Early in 1943 the War Food Administration announced a price support program to encourage production of sweetpotatoes. Growers responded by approximating the requested goal of a million acres, thus approaching the record year of 1932, when a 86,594,000 bushel crop was harvested from 1,059,000 acres. This crop was utilized and marketed by producers without outside assistance. Midseason prospects for 1943 indicated a harvest of 84 million bushels, but unfavorable growing weather reduced the crop to 72,572,000 bushels - 7 million more than the 1942 production, and substantially above the last 10-year average.

By July 1943 there were visions of trainloads of sweetpotatoes looking for a home, with the prospect that the Government might have to become the owner, storer, processor, and distributor. This apprehension was accentuated by the fact that it had been necessary to purchase 628 cars of the 1942 crop, when production was considerably lower than that forecast for 1943. Conditions pre-saged a demand for an enlarged purchase program. Since the original commitment of the War Food Administrator was made for the purpose of encouraging production and conservation of food, the necessity was obvious of forestalling the overloading of markets and the breaking of price at harvest, and of providing storage for a good portion of the crop.

Field Forces Organize

The State War boards, comprising representation of all State and Federal agricultural agencies serving the States, set up special committees to handle specific problems such as storing and purchasing -- everything necessary to conserve the crop. At the county level the pattern of the State organization was used in carrying the program to the people. Hence, all the way from Washington to the most remote community, plans were completed to aid in securing materials, containers, and inspection service, for making loans and handling purchases, and for the performance of other necessary functions. The Food Distribution Administration (now the Office of Distribution) got ready to purchase sweetpotatoes anywhere they were offered upon terms specified in the purchase commitment.

Loan Program Developed

To implement storage, a loan program was developed. Either producers or handlers having 1,000 bushels or more of sweetpotatoes in approved storage were eligible for loans from the Commodity Credit Corporation equivalent to the support price; provided, in the case of handlers, that they had paid the growers the support price. Throughout the season the market and demand made it unnecessary to utilize the purchase program. The same conditions limited the use of the Commodity Credit Corporation loan program. But the availability of these measures had a salutary effect upon the market.

The question arises as to whether facilities now available are sufficient to care for the new crop. It is impractical to provide the necessary storage for all areas without having a surplus in some. There may be much unused storage space in some districts, particularly if prices are insufficient to induce holding for late-season marketings. No matter how much storage is provided in the South - where a large portion of the crop is grown - there can be a market glut at harvesttime due mainly to heavy shipments from Louisiana, Eastern North Carolina, and the Eastern Shore of Virginia and Maryland.

Storage Program

In July the Administrator requested the extension engineers to check storage requirements and estimate materials needed for new construction and conversion of old buildings. A committee from this group worked with U. S. Department of Agriculture engineers in revising blueprint plans for constructing and remodeling storage houses. These were duplicated and given wide distribution. Some agencies in the field supplied plans and specifications especially adapted to local conditions; for instance, several experiment stations made available drafts of modifications required in adapting tobacco barns for use in storing sweetpotatoes. These specifications were copied and distributed by other agricultural agencies, the farm press, and railway agricultural agents.

A hurried and somewhat incomplete survey showed that we had storage for slightly above 18 million bushels. An intensive campaign was started, to provide additional storage, and resulted in increasing the facilities by nearly 4 million bushels, bringing the total to over 22 million. An accompanying tabulation gives the data by States (table 1). As the season progressed estimates of production continued to be reduced. Accordingly, there was a slackening in the campaign for storage because everyone recognized the desirability of conserving materials. Had the crop prospect taken the opposite course, the amount of new storage would evidently have been doubled or trebled.

Old Buildings Converted For Storage

Because of scarcity and cost of materials and labor, the importance of converting old buildings was stressed with successful results, as evidenced by the fact that this method accounted for 63 percent of the storage provided during the year. This becomes all the more impressive when we consider that fully one-third of the new structures were auxiliary to dehydration plants erected with the approval, and in some instances at the expense of the Government.

Let us recount some of the means employed in several of the States. Two new storage projects accounted for Maryland's increase. One of these plants was operated in conjunction with a processing plant doing canning and dehydrating. In both Georgia and South Carolina new and converted storage provided the dehydration projects with their supplies and accounted for most of the increase in storage facilities. In Louisiana a cooperative shared about equally with commercial operators in building new storage -- some by conversion.

Turn to Mississippi for the record performance on farm storage. There the Agricultural Extension Service furnished blueprints to 8,573 farmers, and exhibited model farm storage houses in 65 counties, with the result that 377 farmers built or converted storage structures to take care of more than 300,000 bushels. The other States added facilities, mainly by utilizing old structures.

Farm Security Administration has featured sweetpotato production and conservation as a community project, thus accounting for many storage houses. Vocational Agriculture has done the same, but upon a less extensive scale. Other agencies and organizations making worth-while contributions to the success of the 1943 program included the Commodity Credit Corporation, the Agricultural Adjustment Agency, the Food Distribution Administration, railway agricultural agents, the daily and weekly press, the radio, bankers, and other businessmen.

In further preparation for conserving the crop, agricultural agencies in the Carolinas and Georgia took stock of available tobacco barns in districts where both tobacco and sweetpotatoes are grown, and made plans for the conversion of barns upon an extensive basis. The emergency did not arise as anticipated, but there was considerable use of these barns for storage as is customary in several districts.

In the Carolinas, and to some extent in Tennessee and Kentucky, tobacco warehouses provide storage for a considerable volume of the crop. Some commercial operators fill these warehouses at harvest, permitting free air circulation through doors, windows, and other openings during the daytime, thus drying off the excess moisture without the use of artificial heat. Stoves are fired to prevent cold injury during cold weather.

Processing Provides Outlets

Utilization of a portion of the crop by dehydration plants to provide food, will tend to relieve the market pressure as long as the demand for dehydrated product continues. A low-priced machine has been made available for drying the product on farms. This use should help prevent market surpluses. In the preparation of the product for livestock feed, the tubers are merely shredded and run through the dryer and the job is done rapidly and at low cost. Considerable drying for livestock feed is done by scattering the shredded tubers in the sunlight, usually on concrete surfaces.

Other methods of conservation are being developed. For instance, two experiment stations carried on extensive tests in preserving portions of the 1943 crop by quick-freezing. The frozen product proved to be acceptable in every way. The question arises as to the cost and the method of distribution to the ultimate consumer. Unprocessed sweetpotatoes are little used by the large hotels, restaurants, and bakeries -- the cost of storage, preparation, and handling is too great. Except for baking, the canned sweetpotato is used by the hotels and restaurants; and most bakeries make pies from canned sweetpotatoes -- hence the possibilities of freezing.

Our armed forces endeavored to purchase 19 million pounds of dehydrated sweetpotatoes in 1943, but failed to get that amount. Requirements announced early in June for 1944 were 22 million pounds. Counting 25 percent average waste in preparation for drying and taking into account the 7 to 1 ratio, this would utilize approximately 4 million bushels of the raw product. Canneries will use about a million bushels. The effect marketwise will depend largely upon sources of supply. In 1943 some dehydrators shipped sweetpotatoes hundreds of miles to their plants. It is preferable to obtain supplies locally.

There has been much discussion of possible use of sweetpotatoes, and no doubt new ones will be developed. So far the principal use is for human consumption, but utilization of the commodity, raw or processed, for livestock feed is expanding rapidly. Anyone inclined to speculate on what becomes of the more than 9 million bushels annual production in Georgia needs only to ride through the southern part of the State during the fall of the year and see the hogs rooting in the fields.

Million Acres Goal for 1944

A goal of a million acres was set for 1944. Reports received from the field through May indicated that plantings would approach that figure. Some observers believe that the high prices received for the 1942 and 1943 crops will stimulate acreage materially. Prices of other crops competing for the land must be taken into

consideration. Farmers received 52 cents a bushel for the record sweetpotato crop of 1932. The need for cheap food and feed on millions of small farms is no small factor.

The total and the commercial production of sweetpotatoes are far from being one and the same. Failure to understand this point confuses many people. The entire crop is not so important, from a marketing standpoint, as the locality of production, which influences the time of marketing. In terms of carlot marketings, Virginia ships over 80 percent of her crop, whereas Georgia moves less than half of 1 percent of the State's production by rail. Carlot shipments of the 1943 crop, from Louisiana, were 85 times greater than those from Georgia, although Georgia's production exceeded that of Louisiana's by more than a million bushels.

Motortruck shipments to local markets account for a large percentage of the movement from farms in the Southeast. Preliminary figures on the disappearance of the 1943 crop do not differ materially from other years (table 2).

Research and Planning Needed

This report is intended merely as a summary of the 1943 storage program. The industry justifies a great deal of research. Some of the agricultural experiment stations are doing excellent work on production and processing phases. In production, quality is important - a prerequisite to efficient marketing.

History is up to its old tricks. During the first World War sweetpotatoes of poor quality brought fancy prices -- they are at it again. Let the growers beware! Agricultural agencies sponsoring expansion of acreage upon a far-flung basis have a serious responsibility. If they follow through upon a sound basis after the war we may be able to utilize a large portion of the storage and processing facilities to the advantage of the public and the industry in peacetime. Otherwise the next quarter of a century may witness the abandonment of many storage facilities; their use for other purposes, or their gradual disintegration. This should not occur if plans are laid wisely now and followed through constructively into the post-war order.

Table I

SWEETPOTATO STORAGE AVAILABLE IN 1942-43

(Bushels)

State	Storage available at:			New storage for 1943				Total
	close of 1942			Farm		Commercial		
	Farm	Com-	mercial	New	New	Con-	Con-	
				struc-	struc-	tion	tion	
			tion	Converted:	tion	verted		
Alabama	1,081,150:	56,000:	128,900:	54,800:	5,000:	82,000:	1,407,850	
Arkansas	1,319,800:	-	91,790:	-	-	-	1,411,590	
Georgia 1/	824,600:	108,900:	-	112,450:	128,000:	-	1,173,950	
Kentucky	228,300:	143,030:	4/	4/	-	195,000:	566,330	
Louisiana	737,250:	2,068,000:	30,500:	-	200,000:	-	3,035,750	
Maryland	279,250:	-	67,000:	-	110,000:	-	456,250	
Mississippi	1,341,956:	7,578:	303,639:	-	60,000:	20,000:	1,733,173	
New Jersey	85,000:	65,000:	2,500:	-	-	-	152,500	
North								
Carolina 2/	2,169,000:	995,000:	21,800:	933,100:	12,000:	317,600:	4,448,500	
Oklahoma	146,350:	169,500:	-	-	-	-	315,850	
South								
Carolina 3/	2,500,000:	350,000:	40,000:	320,000:	65,000:	30,000:	3,305,000	
Tennessee	19,700:	1,034,100:	-	10,000:	-	60,000:	1,123,800	
Texas	775,000:	1,250,000:	50,000:	125,000:	50,000:	100,000:	2,350,000	
Virginia	362,000:	276,000:	7,800:	4,000:	-	-	649,800	
Total	11,869,356:	6,523,108:	743,929:	1,559,350:	630,000:	804,600:	22,130,343	

1/ Tobacco barns with potential capacity of over 5,000,000 bushels could be adapted for use if needed.

2/ Tobacco barns with potential capacity of 2,169,000 bushels could be adapted for use if needed.

3/ Tobacco barns with potential capacity of 2,047,000 bushels could be adapted for use if needed.

4/ No record.

Table II

PRODUCTION AND FARM DISPOSITION OF SWEETPOTATOES, BY STATES, 1943 CROP ^{1/}

State	Farm disposition								
	Pro- duc- tion : 1,000 :Bushels	Livestock							
		Saved for seed on farms 1,000 :Bushels	Per- cent	feed, loss, and shrink- age		For farm household use		Sold	
				1,000 :Bushels	Per- cent	1,000 :Bushels	Per- cent	1,000 :Bushels	Per- cent
New Jersey	: 1,440	: 56	: 3.9	: 101	: 7.0	: 59	: 4.1	: 1,224	: 85.0
Indiana	: 150	: 7	: 4.7	: 9	: 6.0	: 38	: 25.3	: 96	: 64.0
Illinois	: 360	: 20	: 5.6	: 22	: 6.1	: 116	: 32.2	: 202	: 56.1
Iowa	: 170	: 4	: 2.4	: 8	: 4.7	: 14	: 8.2	: 144	: 84.7
Missouri	: 760	: 20	: 2.6	: 60	: 7.9	: 320	: 42.1	: 360	: 47.4
Kansas	: 378	: 11	: 2.9	: 26	: 6.9	: 14	: 3.7	: 327	: 86.5
Delaware	: 255	: 16	: 6.3	: 11	: 4.3	: 30	: 11.8	: 198	: 77.6
Maryland	: 960	: 65	: 6.8	: 39	: 4.1	: 86	: 8.9	: 770	: 80.2
Virginia	: 2,976	: 173	: 5.8	: 149	: 5.0	: 792	: 26.6	: 1,862	: 62.6
North Carolina	: 7,760	: 475	: 6.1	: 1,397	: 18.0	: 2,560	: 33.0	: 3,328	: 42.9
South Carolina	: 6,960	: 408	: 5.9	: 1,462	: 21.0	: 2,300	: 33.0	: 2,790	: 40.1
Georgia	: 9,375	: 572	: 6.1	: 1,781	: 19.0	: 3,800	: 40.5	: 3,222	: 34.4
Florida	: 1,608	: 80	: 5.0	: 289	: 18.0	: 484	: 30.1	: 755	: 46.9
Kentucky	: 1,826	: 86	: 4.7	: 201	: 11.0	: 1,079	: 59.1	: 460	: 25.2
Tennessee	: 4,752	: 292	: 6.2	: 570	: 12.0	: 1,650	: 34.7	: 2,240	: 47.1
Alabama	: 7,680	: 437	: 5.7	: 1,536	: 20.0	: 3,726	: 48.5	: 1,981	: 25.8
Mississippi	: 6,970	: 372	: 5.4	: 1,324	: 19.0	: 3,480	: 49.9	: 1,794	: 25.7
Arkansas	: 1,620	: 121	: 7.5	: 243	: 15.0	: 1,050	: 64.8	: 206	: 12.7
Louisiana	: 8,856	: 420	: 4.8	: 1,329	: 15.0	: 2,225	: 25.1	: 4,882	: 55.1
Oklahoma	: 600	: 43	: 7.2	: 72	: 12.0	: 135	: 22.5	: 350	: 58.3
Texas	: 5,616	: 279	: 5.0	: 843	: 15.0	: 1,235	: 22.0	: 3,259	: 58.0
California	: 1,500	: 77	: 5.1	: 180	: 12.0	: 10	: .7	: 1,233	: 82.2
United States	: 72,572	: 4,034	: 5.6	: 11,652	: 16.1	: 25,203	: 34.7	: 31,683	: 43.6

^{1/} Preliminary. Percentages do not differ materially from previous years for which similar information is available.

Source of data: Bureau of Agricultural Economics.

